rotational angle can be halved) by employing the gear through which the disc **25** is rotated two revolutions in accordance with one revolution of the rotary shaft **21**.

Next, a method of measuring the extent in degrees of the tilt angle from the outputs **13** and **14** of the respective photosensors *A **17** and *B **18** as shown in FIGS. **10** and **11** will be described with reference to FIG. **12**.

A rotational direction detector **52** decides whether the output pulses of the photosensors *A **17** and *B **18** are in the phasic relationship shown in FIG. **10** or in the phasic relationship shown in FIG. **11**, thereby discriminating whether the display screen **203** of the small-sized information processor **301** has been tilted downwards or upwards by the user thereof. Specifically, in the case where the directions of the small-sized information processor **301** are related to the tilt sensor **104**, as indicated in FIG. **7**, the upward tilt of the information processor **301** (as shown in FIG. **4**) can be discriminated by the counterclockwise rotation of the disc **25**, and the downward tilt thereof (as shown in FIG. **5**) by the clockwise rotation of the same. The result of the discrimination is sent to a counter **51**. The counter **51** counts up each time one output pulse is received, for the upward tilt direction given as the discriminated result, whereas it counts down for the downward tilt direction. The count content of the counter **51** is converted into the extent of rotation in degrees of the tilt angle on the basis of the aforementioned resolution by a counts-to-degrees converter **53**, and the result of the conversion is stored in a register **54**. The register **54** is connected to the bus **108** shown in FIG. **1**. Incidentally, FIGS. **7** and **8** are depicted somewhat conceptually, and the circuit arrangement shown in FIG. **12** is actually included inside the case **24** of the tilt sensor **104**.

FIG. **13** is a flow chart showing the detailed operation of the tilt angle correction step **603** (in FIG. **6**). Referring to FIG. **13**, at a substep **61**, the processing unit **101** (in FIG. **1**) loads the degree value of the tilt angle from the register **54** (in FIG. **12**) and stores it in a register R**0** (not shown) included in the storage unit **103** (in FIG. **1**). At a substep **62**, the processing unit **101** waits for a certain time period until the operator of the information processor **301** ends the tilting action after turning on the scroll start switch **110** (in FIG. **3**). In this regard, the operability of the information processor **301** can be enhanced by setting the wait time period at any desired length and storing it in the storage unit **103**. At a substep **63**, the degree value of the tilt angle is further loaded from the register **54** and is stored in a register R (not shown) included in the storage unit **103**. At a substep **64**, an angular variation (R–R**0**) is calculated from the contents of the registers R**0** and R, and it is determined as the tilt angle of the information processor **301**.

By the way, this embodiment is so constructed that the display screen **203** is scrolled up and down by tilting the small-sized information processor **301** toward the upper side and lower side thereof, respectively. On the contrary, however, the display screen **203** may well be scrolled down and up by tilting the information processor **301** upwards and downwards, respectively. This aspect of operation can be implemented in such a way that the plus and minus signs of the incremental or decremental magnitude M or 2M of the pointer value **201** are reversed at the steps **607**, **608**, **609** and **610** of the flow chart shown in FIG. **6**.

Moreover, although the upward and downward scrolling operations have been explained in this embodiment, rightward and leftward scrolling operations can be implemented on the basis of similar principles.

As described above, the present invention can provide a small-sized information processor which, when it is used while being held in one hand, permits a scrolling action without the need to use the other hand.

More specifically, according to the present invention, in scrolling a screen in the state in which the small-sized portable information processor is held in one hand, the screen can be scrolled in accordance with a tilt direction by tilting the small-sized information processor, and hence, the scrolling action need not be performed using the other hand in which the small-sized information processor is not held. It is accordingly possible to provide a small-sized information processor in which the screen can be scrolled easily even using one hand. The small-sized information processor demonstrates a favorable operability especially in case of looking at the content of an electronic publication or a document which has already been entered.

What is claimed is:

1. A small-sized information processor which has, at least, a display device provided with a display screen, and which is used while being held in one hand, comprising:

command input means for entering a command for scrolling said display screen, in the state in which said small-sized information processor is held in one hand;

tilt detection means for detecting a relative tilt of said small-sized information processor with respect to a reference tilt thereof assumed when the scroll command is entered; and

scroll means for scrolling said display screen on the basis of the relative tilt detected by said tilt detection means.

2. A small-sized information processor according to claim **1**, wherein:

said tilt detection means detects a tilt direction and a tilt angle of said small-sized information processor; and

said scroll means determines a scrolling direction of said display screen on the basis of the detected tilt direction, and a scrolling speed thereof on the basis of the detected tilt angle.

3. A small-sized information processor according to claim **1**, wherein said command input means includes a switch which, when actuated, initiates said scroll command, and said switch is mounted at a position at which it can be manipulated with a finger of the hand holding said small-sized information processor.

4. A small-sized information processor according to claim **3**, wherein said switch is a pushbutton switch which maintains said scroll command valid while being depressed.

5. A small-sized information processor according to claim **1**, wherein said tilt detection means detects a tilt direction with respect to said reference tilt, and

said scroll means determines a scrolling direction of said display on the basis of the tilt direction detected by said tilt detection means.

6. A small-sized information processor according to claim **5**, wherein said scroll means determines a scrolling speed of said display screen on the basis of said relative tilt.

7. A small-sized information processor according to claim **3**, wherein said scroll means scrolls said display screen as long as said switch is depressed.

8. A scrolling method for a small-sized information processor which has, at least, a display device provided with a display screen, and which is used while being held in one hand, said method comprising the steps of:

entering a command for scrolling said display screen, in the state in which said small-sized information processor is held in one hand;

detecting a relative tilt of said small-sized information processor with respect to a reference tilt thereof